

Mr. Price continued the reading of his communication upon "The Family as an Element of Government."

Pending nomination No. 508 was read.

The letter of the Secretary of the Royal Society was then considered, and on motion, the subject was referred to the Secretaries, with power to act.

And the Society was adjourned.

Stated Meeting, February 19, 1864.

Present, fifteen members.

Dr. Wood, President, in the Chair.

A letter accepting membership was received from Thomas Chase, dated West Haverford, February 18th, 1864.

Letters acknowledging the receipt of publications were received from the German Geological Society, Berlin, November 5th, and the University of Toronto, February 8th, 1864, and a photograph of Mr. Fraley for the Album.

Donations for the Library were received from the Vaudois Society of Sciences, and the Museum at Cambridge, Massachusetts.

An obituary notice of Dr. Darlington was read by Mr. T. P. James.

AN OBITUARY NOTICE OF DR. WILLIAM DARLINGTON,
READ BEFORE THE AMERICAN PHILOSOPHICAL SOCIETY, FEBRUARY 19TH,
1864, BY MR. T. P. JAMES.

THE usual reproach charged upon scientific men, of unfitness for the duties of practical life, cannot be urged against the subject of this sketch, for versatility of talents, joined with great executive ability, caused his opinion to be eagerly sought for, and his judgment highly valued.

William Darlington in early life had few educational advantages; possessing, however, energy of character and great perseverance, he was enabled by his fondness for study to enrich his mind with lore from the writings of the best authors in most of the ancient and modern languages. He had the rare faculty of improving every

opportunity for acquiring knowledge; his childlike humility was apparent even in advanced age, and he never felt himself too old to learn or too wise to accept the gleanings of other minds.

When we consider his kind and benevolent disposition, social habits, and genial manners, it is not surprising that his loss is deeply mourned by numerous friends, and a large circle of acquaintances and correspondents, not only in this country but in Europe.

He was elected a member of the American Philosophical Society forty years ago, and was among the oldest surviving members. His life-long devotion to science and important public services have rendered his name honored and his memory deserving a tribute of respect.

Our attention will be chiefly directed to his character as a botanist, for it is that side of his full-orbed life which is most interesting to us, and by which he has been most widely known.

Some knowledge of his history and early life may be gleaned from the following extract from a manuscript autobiography in my possession, and will serve to illustrate the preceding remarks:

"My great grandfather, Abraham Darlington, was a contemporary of William Penn; and being of the same religious persuasion, followed him to his province of Pennsylvania near the close of the seventeenth century.

"He first settled near Chester, a village on the right bank of the River Delaware, and the oldest town in Pennsylvania. His letters from his parents in England are dated from Darn Hall in Cheshire. He afterwards removed to the banks of the Brandywine, our classical stream in Chester County, where he continued to reside until his death. His son Thomas, my grandfather, married Hannah Brinton, the daughter of a Quaker family, which also came with William Penn. Their eldest son, Edward Darlington, my father, was married to Hannah Townsend, daughter of another old English family of Quakers, which had sought a refuge in Penn's province.* I was born on the 28th day of April, 1782, and so far as I can trace my

* It would not be inappropriate here to allude to an occurrence of recent date, the sesqui-centennial gathering of the clan Darlington, which rallied at East Bradford, Chester County, the residence of Brinton Darlington, grandson of the first American progenitor, on the 20th August, 1853, at the call of some of the elders of the tribe, where nearly four hundred, old and young, assembled at the appointed time and enjoyed the happy reunion. On which occasion it was ascertained that the total number of descendants of Abraham Darlington amounted to one thousand five hundred and twenty-four.

ancestry on both sides, I may say that my blood is purely Anglican, without a cross.

“My father inherited a farm from his maternal grandfather. It is situated in the Township of Birmingham, five miles south of West Chester, about midway between the two localities on which the battle of Brandywine was fought. On that farm I was born and brought up until I nearly completed my eighteenth year. I was the eldest son, and being designed for a farmer, I was put to all sorts of agricultural labor as I became capable of it. I was not permitted to go to school, except in the winter season, after I was thirteen years old; and yet I manifested at an early age a much greater fondness for books than hard work!

“My mother taught me to read while I was quite young; and I recollect often hearing the dear old lady tell the neighbor women that her Billy had read the Bible through before he was six years old.

“Before I was eighteen I had conceived such an aversion to the uninteresting drudgery of the farm, and felt such a desire to engage in some kind of study or scientific pursuit, that my father consented to let me study medicine, which was the profession I selected, on account of its connection with the most interesting natural sciences.

“Accordingly, on the 1st of April, 1800, I commenced the study of medicine, in Wilmington, Delaware, with Dr. John Vaughan, a respectable physician of that place. In the autumn of that year I began the study of the French language with an accomplished scholar.

“In 1802, I became conscious of a taste for botanical researches, which was awakened by the perusal of Darwin's *Botanic Garden*, but there was no one then in Wilmington to aid me, and I made little progress. In the autumn of that year, Wilmington was visited by the malignant yellow fever; such was its mortality and the consequent dismay, that all the physicians, except my preceptor, ingloriously fled; he, and I, his humble student, were the only medical personages who staid to attend the sick; we persevered through an arduous and anxious season, and were mercifully favored to escape the disease.

“In November, 1802, I repaired to Philadelphia, to attend the medical lectures in the University of Pennsylvania, where I was favored to become familiarly acquainted with Prof. B. S. Barton, who discovering in me a considerable fondness for the study of plants, took me under his special patronage, and by his kind attention and instruction gave a decided bias to my future pursuits. A society was

formed that winter, called the American Linnæan Society, of which Prof. Barton was president, and it did me the unexpected, not to say unmerited honor, of enrolling me among the members.

"At the conclusion of the course of lectures, I returned to the office of my preceptor in Wilmington, where I passed the summer in his service, but in the following November, went again to Philadelphia, to attend my second course. I became a member of the Philadelphia Medical Society, and applied myself diligently to prepare for the degree of Doctor of Medicine, being the first candidate from Chester County, so far as I know, who had then aspired to that honor.

"I passed a satisfactory examination for my degree, in March, 1804, and as the commencement that year did not take place until the beginning of June, I remained in the city to prepare and print my inaugural thesis, and especially to attend a course of lectures on Botany, by Prof. Barton.

"The Professor occasionally took his small class to the Bartram Botanic Garden, to illustrate practically some of his teachings, and these were my earliest visits to that interesting spot. William Bartram and John Bartram, Jr., were then living there, and distinctly do I recollect the venerable men, though I little dreamt I should one day have so much to do with the history of the family.

"The candidates for the medical degree of Doctor were publicly examined before the Trustees and Faculty of the University, on the merits of their several Theses.

"The subject of mine was, the 'Mutual Influence of Habit and Disease.' It fell within the province of Prof. Rush to examine it. As I had the good luck to advocate the favorite doctrines of the Professor in that essay, I got off very handsomely. Instead of putting me on the defensive, as several of my companions had been, the Doctor called me up, and addressing the Trustees and Faculty said, 'This dissertation, gentlemen, is a successful application of metaphysics to the practice of physic. I have read it twice through with attention, and have no objection to make to it.' I then had nothing to do but make my bow and sit down. A very talented gentleman from Virginia, vastly my superior, who sat immediately before me, and had just been severely questioned on some of the doctrines of his thesis, turned round and laughingly asked, 'Darlington, is that what you call defending your thesis?' On the following day I received my diploma, and returned to my father's dwelling to reside, after an absence of four years. Here I loitered away my time in a

limited country practice, and in the study of Latin, for, when I received my diploma, I could not read a word of it, and my pride was piqued and my ambition excited to get rid of that opprobrium. I took lessons of a private tutor for a few weeks, and then set to work myself until I made considerable progress. Thus I passed my time for two years, moping in rural solitude over my grammar and dictionary, when not riding to see a patient; but I became discontented with my humdrum existence as a country practitioner, and at length resolved to abandon my rustic home for a life of more excitement and interest. I therefore engaged myself as surgeon of an East India ship bound to Calcutta. After a long and tedious voyage of five months in a leaking ship we landed safely at Calcutta. I went ashore to reside, and being curious in the study of language, I procured a grammar and forthwith commenced the acquisition of the spoken jargon, as it is termed, of Bengal. We remained two months in port, during which time I spent two delightful days in the East India Company's Botanic Garden, and made the acquaintance of Dr. Wallich, its director, the well-known botanist. After an absence of thirteen months I reached my native land."

Some years after his return, he prepared, from his journal and memory, an account of his India voyage, in a series of letters from Calcutta, which may be found in the 13th and 14th volumes of the *Analectic Magazine*.

Dr. Darlington in his younger days was a man of social habits, and a cheerful companion in the several societies of which he was a member, and much given to poetry and rhyming. Many of his songs were written for the amusement of his associates, and, as he had a good voice, were always sung by him with éclat. A number of these rhymes found their way to the public in the periodicals of the day.

On the 1st of June, 1808, he married Catharine, daughter of General Lacey, of New Jersey, an officer of the Revolutionary War, and settled in West Chester, at that time a small hamlet, to practise medicine, in which pursuit he was successful, and maintained a high position in the profession. For self-improvement he studied the German language under a private tutor, and soon acquired a knowledge of German literature.

In 1813, he began to devote more especially his leisure hours to botanical investigations, with a view of preparing a catalogue of the phænogamous plants growing in the vicinity of West Chester, but his peaceful occupation was interrupted by the war then raging with Great Britain, and although educated in the tenets of the Society

of Friends, he became imbued with the spirit of a soldier and actually took up arms in defence of his country, and rose to the rank of major of a regiment. Having acquired a military taste, he aided in keeping it alive among his associates. A few years later he was elected a lieutenant colonel of a battalion of volunteers, and afterwards colonel of a regiment, and commanded the escort to General Lafayette on his visit to Chester County and the battle-fields of the Brandywine. During his military ardor his muse took a patriotic flight, and his effusions were much in vogue in those stirring times, and served greatly to elicit enthusiasm among the yeomanry of Chester. Their gatherings were enlivened with many of his songs.

While serving in the field he received notice of his election to the national legislature. Soon after taking his seat as a member of the 14th Congress, he composed and sung, at a dinner given on the 8th of January, 1816, by the Pennsylvania delegation, to Commodores Decatur and Stewart and Captain Biddle, of the Navy, the "Yankee Tars,"—a song commemorative of our naval victories, and historic of the deeds of the brave men of that day. This song was published in the leading journals, and received merited encomiums.

Dr. Darlington was re-elected a member of Congress in 1818, also in 1820, and ever faithful to his trust, was rarely absent from his seat.

He made a memorable speech in favor of restricting slavery in the State of Missouri, as preliminary to her admittance as a member of the Union, which was published in the *National Intelligencer*, and in *Niles's Register*, where he remarks, it is preserved "like a fly in amber." This speech did infinite credit to his head and heart, and was a subject on which he ever felt strong convictions of the truth of his views.

In recent exciting events he took a lively interest, and at the outbreak of the rebellion his loyalty to the Union was strongly manifested, in bringing his entire influence to bear in upholding the position of the Government, and he remarked, that had he been younger, he would again have unsheathed his sword in defence of his country.

In the summer of 1817 he began in earnest to prepare his work, and at the suggestion of his friend, Dr. Baldwin, to collect an herbarium of the plants of Chester County, as an indispensable means of determining the species; but his attention was much diverted from a vigorous prosecution, by various trusts and public services. Still, his duty to his first love would prevail, and lead him back to his agreeable labor.

Although he commenced the Enumeration in 1813, it was not fully elaborated for the press until the winter of 1824-25. Its issue was retarded, in the meantime, on account of the appearance of Pursh's valuable Flora, and subsequent publication of Nuttall's excellent work on the North American Genera, but more especially of Dr. Barton's Flora Philadelphica, which latter comprised the greater portion of the plants of his district; all seeming to him to supersede the utility of his project, and, for a time, he relinquished the idea of printing the work.

Believing, however, in the good results of local Floras in the development of science, he brought his labor to a close.

In the ardor of the pursuit of his object, he had the satisfaction of communicating a taste for botanical investigations to a number of the intelligent gentlemen of his vicinity, who, in return, afforded him assistance in his work.

The Enumeration was published under the title of "*Florula Cestrica*." The motto adopted for the work, a line from Horace, is characteristic of the author,—"*Ore trahit quodcunque potest atque addit acervo.*"

In 1837 he published the *Flora Cestrica*, a more extended work, being an attempt to enumerate and describe the flowering and filicoid plants of Chester County, Pennsylvania, adopting the Linnæan arrangement, whilst the modern botanical world had so generally abandoned it for the natural method. He considered the latter as yet not sufficiently established in its details for his purposes, although freely admitting that the true science of vegetables could only be attained by a philosophical investigation of their structure, functions, and natural affinities; yet he could not help thinking that even the superficial knowledge of genera and species so readily acquired by the Linnæan system, of advantage to the learner, by exciting an early interest and facilitating his first steps. Of this edition, it must be admitted, that a more comprehensive description of each species of a genus has rarely been given to the public in this country.

A third edition of the *Flora Cestrica* appeared in 1853, arranged throughout according to the natural system, to which was added those plants which had been found to exist in the County since the preceding one was published, and it was extended so as to embrace the Anophytes and the Thallophytes. The author contemplated, when this revised edition was commenced, to have inserted a brief description of all the indigenous species of the Vegetable Kingdom which had been detected in the County, together with such introduced

plants as had become naturalized, or were cultivated for useful purposes, but it became apparent that the still lower orders, especially the Fungi, which are so multitudinous, would render the volume inconveniently large.

Of this work, we have the highest authority for asserting that it is "one of the best local Floras ever written." It has become a handbook for all lovers of the "amiable science" in his native State, and the clear and minutely accurate descriptions of the plants enumerated, will always render it a valuable assistant to the botanist.

Dr. Darlington was so strongly impressed with the great importance of a knowledge of botany, to almost all classes of the community, that he let no opportunity pass without expatiating upon its advantages; he regarded its utility great, in reference to mental discipline, intellectual qualification, and practical usefulness. He seemed to think it impossible for any one endowed with the common attributes of humanity to avoid being, to a partial extent, at least, a naturalist; in his opinion, no education could be deemed complete without some acquaintance with the rudiments or first principles of botanical science, some rational knowledge of the multiform creation around us, known as the Vegetable Kingdom. To the agriculturist, he considered such information indispensable; and with these views, he compiled and published, in 1847, an *Agricultural Botany*, an enumeration and description of the useful plants and weeds which merit the notice or require the attention of American farmers. The beneficial influence of the circulation of this useful volume in Chester County is evident from the disappearance of those pestiferous weeds which have followed the footsteps of civilization from the old world to the new. In compiling this work, he found it somewhat difficult to determine, satisfactorily, the line of demarcation between plants entitled to a place, and those which might properly be omitted; but it must be admitted that he has happily succeeded in the selection of plants for the object he had in view.

In 1819 Dr. Darlington opened a correspondence with the veteran botanist, Prof. De Candolle, of Geneva, and sent him a package of American plants, which procured him a polite return, and doubtless, in 1824, the honor of a genus dedicated to his name; this genus was afterwards found, by Mr. Bentham, to be a *Dismanthus*, and so it was cancelled.

Many years later, Dr. Torrey, unwilling that the labors of this Nestor of American botanists should not be suitably commemorated,

at first indicated a genus to his name of a Californian plant on imperfect specimens, but upon obtaining good flowering plants, it proved to be only a species of *Styrax*. (*Styrax Californica*, n. sp.)

Nothing daunted, however, Dr. Torrey determined that there should be established a genus suitable to such an honor, and seized the opportunity of dedicating a new pitcher plant, detected in Upper Sacramento, California, which proved to be generically distinct from *Sarracenia*, as well as *Heliamphora*, and which he remarks, "I take pleasure in dedicating it to my highly esteemed friend, Dr. William Darlington, of West Chester, in Pennsylvania, whose valuable botanical works have contributed so largely to the scientific reputation of our country." And thus it now stands firmly established, the *Darlingtonia*, with one species thus far known, the *Californica*. He was very desirous of seeing a living specimen of this plant, but his wish was not gratified; he, however, had the satisfaction of knowing, a few days prior to his decease, that Dr. Gray had succeeded in raising a plant from seed, at the botanic garden at Cambridge.

Dr. Darlington projected a Natural History Society, which, in conjunction with a few friends, was organized on the 18th of March, 1826, by the name of the Chester County Cabinet of Natural Science, to which institution he was elected president, filling that office during his life. For thirty-seven years he labored assiduously for its welfare, devoting much time and energy by addresses and writings to awaken a general interest in the subjects connected with it. Drawing around him a few congenial spirits, he hoped to illustrate thoroughly the natural history of his native county, taking for his model White's History of Selborne, which he particularly admired. This plan has been partially carried out, and collections made, but only the botanical portion has been published.

He bequeathed to this institution his valuable library of botanical books and his Herbarium, containing the treasures of his life-long labors in that science. This he rearranged only a few years ago, adding the synonymes of each plant, thus facilitating the research of future botanists. He asserted that its eight thousand species were so completely catalogued and arranged according to their natural affinities, that any one of them could be promptly exhibited on demand.

He was chosen President of the Chester County Athenæum, in 1831, and by his services rendered that institution valuable assistance.

Making the acquaintance of a Castilian gentleman, residing in

West Chester, in 1832, he studied under his instructions the Spanish language, and took delight in perusing many works of celebrity in that tongue.

Dr. Darlington's interest in the botanists of his native State, induced him to compile selections from the correspondence, with occasional notes and a biographical sketch of his intimate friend and classmate, the late William Baldwin, M.D., Surgeon in the United States Navy, who died whilst on an expedition up the Missouri, under Major Long, which he published in 1843, under the title of *Reliquiæ Baldwinianæ*.

A few years afterwards, from the materials put into his hands, he collected the correspondence of two of the early and venerable pioneers of botany in Pennsylvania, to which he appended a brief notice of the life of each, and published them in 1849, in one large volume, as the *Memorials of John Bartram and Humphry Marshall*, with notices of their botanical contemporaries.

In these worthies of a former generation he was deeply interested, and alluded to himself with his usual humility of his own name going down to posterity as an epiphyte clinging to their sturdy branches. Much credit must be accorded to him for the patient perseverance in rescuing from oblivion these very interesting letters, many of them written by the most distinguished European botanists of Linnæus's time, and comprising some of the epistolary correspondence of the two venerable Pennsylvanians, and which the editor persuades himself that the lovers of nature and admirers of native worth amongst us will regard with interest.

Humphry Marshall, it is believed, published the first truly indigenous botanical essay in this Western hemisphere. It appeared in the year 1785, in the form of a duodecimo of about two hundred pages, under the title of *Arbustum Americanum*, the American Grove, and is dedicated to the officers and members of the American Philosophical Society.

Among Dr. Darlington's contributions to the history of his native State must be mentioned an interesting paper on the famous "Mason and Dixon's line." He has given an excellent account of this memorable controversy between Lord Baltimore and the family of Penn, which lasted from 1682 to 1767.

From his untiring research and extreme accuracy in detail, he was well fitted for an antiquarian, but the ever-open book of nature, whose hieroglyphics he tried to elucidate and expound, had higher claims to him than old manuscripts and musty tomes.

During the last few years of his life he was engaged in preparing the "*Notæ Cestrienses*," a series of memoirs of the men of Chester, published in a periodical of the county. He left in the hands of his friend J. Futhey Smith, voluminous MS. materials for the history of Chester County, which it is to be hoped will be speedily published.

His last work, completed a few months before his death, was a paper on "*The Weeds Injurious to Agriculture in the United States*," for the Agricultural Bureau, and will appear in the next volume of reports.

At the organization of the Chester County Medical Society in 1828, although he had relinquished the practice of medicine for nearly twenty years, yet such was the estimation he was held among the profession, that he was elected president, which position he held at his death.

In 1848, the degree of Doctor of Laws was conferred on him by Yale College; and he was a member of more than forty literary and scientific societies.

To exhibit Dr. Darlington's comprehensive talent, it would be proper to state that he took an active part in establishing the Bank of Chester County, and was continued a director from its origin until his death, and president for more than thirty years. He held various appointments from the Governor, Prothonotary of the County, Canal Commissioner, and for a term President of the Board. He was the prime mover in establishing the Agricultural and Horticultural Societies of the county, and the West Chester Railroad, and for a time a Director and President of the Company. In fact, every public improvement projected within his native county or town, appears to have originated with him, or found in him an active coadjutor. He took great pains in securing beauty of design and symmetry of form in the public buildings of West Chester, and a prominent part in the improvement of the public park, selecting the trees with care, and planning this small arboretum, which in time will be the resort of those who wish to study the form and growth of our native trees.

Dr. Darlington held during his life many important political offices, and the following remark in his biography, merits the attention of office-seekers of the present day. "I have been some ten years in public service, by election and executive appointment, and can truly say that I never asked for an office; nor as much as insinuated to any one that I would like to have his vote and interest for one. I always took it for granted that every man who wished to vote for me would do so without solicitation; and if he did not wish it, I was too proud to solicit it."

He was ever ready and always disposed to contribute to the advancement of any literary or scientific enterprise by public addresses and lectures, and he was frequently called upon for such gratuitous labor. More than twenty addresses, mostly upon botanical science or kindred subjects, were delivered by him, on various occasions, and afterwards published. His constant desire was to educate the public mind to a love of scientific pursuits, he therefore lost no opportunity of communicating his own zeal to the young around him.

In the spring of 1862, Dr. Darlington was attacked by paralysis, from which he partially recovered, but the following winter another stroke rendered him helpless, and he gradually declined, until the 23d of April, 1863, when he quietly expired at the advanced age of nearly eighty-one, in the town of West Chester, and only a few miles distant from his birthplace.

Twenty years before his death, he wrote his own epitaph, as he remarks, in his biography, "I had a desire to prevent the partiality of surviving friends from resorting to commonplace eemetrical eulogy, and yet had a wish for some botanical allusion, to meet the eye of any lover of plants who might happen to visit the spot while the memorial remained, so I prepared the following, which is intended as the expression of a kindly wish or ejaculation on the part of the future botanist who may see and recite it as he rambles by. It is to be an isolated paragraph below the name and dates, thus:

PLANTAE CESTRIENSES,
QUAS
DILEXIT ATQUE ILLUSTRAVIT,
SUPER TUMULUM EJUS,
SEMPER FLOREANT!"

His remains repose in a secluded part of the beautiful Oaklands Cemetery of West Chester, to which they were borne by a crowd of his sorrowing neighbors, on the Sunday following his decease. He was mourned not only as a public benefactor, but as a friend, kind, affectionate, and charitable, a consistent communicant of the Episcopal Church, a truly Christian gentleman, in whose death each felt a personal loss. A wise man, his literary attainments and learning were never obtrusively thrust forward; the humblest listener separated charmed by his simplicity of manner and quaintness of conversation: thus he made friends of all, yet in his quiet dignity he seemed the

father and patriarch of the beautiful town he had for fifty-five years watched over, and with which his name will ever be identified.

I will close this tribute to a tried and faithful friend with a quotation he has on a like occasion adopted.

— "Manibus date lilia plenis:

Purpureos spargam flores, animamque Amici
His saltem accumulem donis, et fungar inani
Munere."

"Handfuls of fresh and fragrant lilies bring,
Mixed with the purple roses of the Spring;
Let me with funeral flowers his body strew;
This mournful duty to my friend I owe,—
This unavailing gift at least I may bestow."

A letter was read from Prof. Zantedeschi, of Padua, dated January 7 6, 1864, offering for publication in the Transactions of the Society an Italian manuscript, entitled "Capo III. Dei risultamenti ottenuti da una nuova analisi dello spettro luminoso," which on motion of Prof. Coppée was referred to a committee, consisting of Prof. Kendall, Prof. Lesley, and Dr. Bridges.

A communication was read from Mr. Buckingham Smith, dated New York, February 15th, 1864, addressed to Mr. John W. Field, 243 South 18th Street, Philadelphia, and communicated to the Society through Mr. Benjamin Gerhard, offering for publication by the Society a communication entitled "Grave Creek Mound, and certain Inscriptions on Stone, found in the Northern Atlantic States, incidental to its History," which was read by the Secretary, and after remarks by Dr. Coates, Prof. Trego, Dr. Le Conte, and Prof. Haldeman, was on motion referred to a committee consisting of Prof. Haldeman, Mr. Chase, and Dr. Le Conte.

Prof. Haldeman presented a curiously formed pebble, taken from the bottom of an excavation in the Valley of the Susquehanna, to illustrate the very artificial aspect which purely natural objects of this kind sometimes wear.

Mr. Chase referred to a paper on caloric, lately published by Mr. Colburn, and discussed its bold but violent hypothesis of the generation of the diurnal maximum of heat from the conversion of the earth's rotary velocity. Mr. Briggs